

## REMARKS

Upon entry of the present amendment, claims 6, 9-21, and 25-34 will be pending in the present application. Applicants thank the Examiner for allowing them to interview the application on May 30, 2007. The rejections of record were discussed. Support for the new claims is shown in the Table below.

Claim	Feature	Specification
25	a) concentrating a pyrene actin composition;	Page 4, line #3 of "Protocol of manufacture"
	b) mixing the concentrated pyrene actin composition with stabilizing agents and a reducing agent, thereby generating a second pyrene actin composition; and	Page 4, line #4 of "Protocol of manufacture"
	c) rapidly freezing the second pyrene actin composition	Page 4, line #6 of "Protocol of manufacture"
	d) lyophilizing the frozen second pyrene actin composition generated in step c	Page 4, line #7 of "Protocol of manufacture"
26	reducing agent is dithiothreitol	Page 4, line #5 of "Protocol of manufacture"
27	stabilizing agents are dextran and sucrose	Page 4, line #4 of "Protocol of manufacture"
28	e) resuspending the lyophilized and frozen second pyrene actin composition in a buffer comprising 5 mM Tris pH 8, 0.2 mM CaCl <sub>2</sub> , and 0.2 mM ATP, thereby generating a resuspended pyrene actin composition; and	Page 4, line #1 of "Determining Pyrene Actin Activity"
	f) incubating said resuspended pyrene actin composition on ice	Page 4, line #1 of "Determining Pyrene Actin Activity"
29	concentrating pyrene actin up greater than 10 mg/ml and mixing with a reducing agent, and sucrose and dextran stabilizing agents to produce a concentrated pyrene actin;	Page 4, lines #3 + #4 of "Protocol of manufacture"; Page 5, lines 11-13; original claim 1
	rapidly freezing the concentrated pyrene actin to produce a frozen concentrated pyrene actin; and	Page 4, line #6 of "Protocol of manufacture"
	lyophilizing the frozen concentrated pyrene actin	Page 4, line #7 of "Protocol of manufacture"

	with a gradient temperature profile from -40°C to +30°C to produce the stabilized form of pyrene actin, wherein the stabilized form of pyrene actin retains its ability to polymerize with the typical nucleation for more than 3 years when stored at 4°C	of manufacture”; Page 3 in description of Figs 3 and 4; Page 2, line 6
30	concentration of sucrose is 5% and the concentration of dextran is 1%	Page 5, line 3
31	concentration of pyrene actin prior to freezing is greater than 20 mg/ml	Page 5, lines 14-15
32	reducing agent is dithiothreitol	Page 4, line #5 of “Protocol of manufacture”
33	lyophilized and frozen concentrated pyrene actin is rehydrated with 5 mM Tris-HCl, 0.2 mM adenosine triphosphate, 0.2 mM CaCl <sub>2</sub> and 10 mM dithiothreitol to create a solution of pyrene actin	Page 4, line #1 of “Determining Pyrene Actin Activity”
34	the solution of pyrene actin is polymerized by adding 50 mM KCl, 2 mM MgCl <sub>2</sub> and 1 mM adenosine triphosphate	Page 4, line #3 of “Determining Pyrene Actin Activity”

## **I. The Claimed Invention Is Not Obvious**

### **A. The Drenckhahn Reference**

Claims 6, 10, 11, and 15-19 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Drenckhahn et al., J. Biol. Chem., 1986, 261, 12754 (hereinafter, the “Drenckhahn reference”). Applicants have amended claim 6 to incorporate the subject matter of claim 8, which was not rejected. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

### **B. The Combination of the Drenckhahn and Pollard References**

Claims 6, 10, 11, and 15-19 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Drenckhahn et al., J. Biol. Chem., 1986, 261, 12754 (hereinafter, the “Drenckhahn reference”) in view of Pollard, J. Cell Biol., 1984, 99, 769 (hereinafter, the “Pollard reference”). Applicants have amended claim 6 to incorporate the subject matter of claim 8, which was not rejected. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

**C. The Combination of the Drenckhahn and Cooper References**

Claims 6, 10, 11, and 15-19 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the Drenckhahn reference in view of Cooper, J. Musc. Res. Cell Motil., 1983, 4, 253 (hereinafter, the "Cooper reference"). Applicants have amended claim 6 to incorporate the subject matter of claim 8, which was not rejected. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

**D. The Combination of the Drenckhahn and Blatt or Cordle References**

Claims 6, 10, 11, and 15-19 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the Drenckhahn reference in view of either Blatt, Amer. Lab., 1969, March, 21 (hereinafter, the "Blatt reference") or U.S. Patent No. 4,897,465. Applicants have amended claim 6 to incorporate the subject matter of claim 8, which was not rejected. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

**II. Conclusion**

In view of the foregoing, Applicants respectfully submit that the claims are in condition for allowance. An early notice of the same is earnestly solicited. The Examiner is invited to contact Applicants' undersigned representative at (610) 640-7859 if there are any questions regarding Applicants' claimed invention.

Respectfully submitted,

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